

ABSTRACT

A ground fault circuit comprising: a power supply, and a transformer having a primary winding driven by the power supply and a high voltage secondary winding, a shutdown control circuit having a controllable switch and a control input coupled to the controllable switch for causing operation of the controllable switch when a trigger voltage applied to the control input is exceeded, the shutdown control circuit being coupled to the power supply for controlling shut-down of the power supply when the switch is in operation, a circuit connected to the high voltage secondary winding for detecting leakage current from the transformer to ground, for short circuiting an A.C. component of the leakage current passing through the detector to ground, and for deriving a D.C. voltage from D.C. leakage current from the transformer to ground, and a circuit for applying the derived D.C. voltage to the control input of the shutdown control circuit, whereby the power supply may be shut down in the presence of leakage current in excess of the trigger voltage which is derived exclusively from D.C. current leakage from the transformer to ground.

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